

EXAMINATION NOTES

SUBJECT: COST ACCOUNTING

B.COM 3RD SEMESTER (NEP)

PROGRAM CODE: DSC

COURSE CODE: 25COMI403DS02

EXTERNAL MARKS: 70

INTERNAL MARKS: 30

Prepared by: Dr. Seema Khanna

SYLLABUS COVERED

M.D.U. ROHTAK

UNIT-1

COST ACCOUNTING

Cost accounting is a specialized branch of accounting that focuses on capturing, analyzing, and managing the costs associated with producing goods or services. It plays a crucial role in internal decision-making, helping businesses control expenses, set prices, and improve operational efficiency.

Meaning of Cost Accounting

Cost accounting involves the systematic recording, classification, analysis, and allocation of expenditures to determine the costs of products or services. It provides detailed cost information that aids management in budgeting, controlling operations, and making strategic decisions.

Nature of Cost Accounting

The nature of cost accounting is characterized by:

- **Analytical Approach:** It breaks down costs into components (materials, labor, overheads) for detailed analysis.
- **Internal Focus:** Unlike financial accounting, which is aimed at external stakeholders, cost accounting is used internally by management.
- **Decision-Oriented:** It provides data to assist in planning, controlling, and decision-making processes.
- **Dynamic Process:** Cost accounting adapts to changes in production methods, technology, and organizational structure.

Scope of Cost Accounting

The scope of cost accounting encompasses various functions, including:

Cost Determination: Calculating the cost of products, services, or activities.

- **Cost Control:** Monitoring and regulating expenditures to align with budgeted costs.
- **Cost Reduction:** Identifying areas to minimize costs without compromising quality.
- **Budgeting and Forecasting:** Preparing budgets and predicting future financial performance.
- **Performance Evaluation:** Assessing efficiency and productivity through variance analysis.
- **Inventory Valuation:** Determining the value of inventory for financial reporting.

Cost accounting is applicable across various industries, including manufacturing, services, and non-profit organizations.

Limitations of Cost Accounting

Despite its benefits, cost accounting has certain limitations:

- **Complexity:** Implementing a comprehensive cost accounting system can be complex and time-consuming.
- **Costly Implementation:** Setting up and maintaining cost accounting systems may require significant investment.
- **Potential for Inaccuracy:** Estimates and allocations used in cost accounting can lead to inaccuracies if not managed carefully.
- **Not Standardized:** Unlike financial accounting, cost accounting lacks standardized procedures, leading to variations across organizations.
- **Limited External Use:** Information generated is primarily for internal use and may not be suitable for external stakeholders.

In summary, cost accounting is a vital tool for internal management, providing detailed insights into cost structures and facilitating informed decision-making. However, organizations must be mindful of its complexities and limitations to effectively leverage its benefits.

*CONCEPT OF COST ELEMENT

The **cost element** refers to the **individual components or items of cost** that make up the total cost of production or services. In **cost accounting**, all expenses are broken down into distinct elements for **better analysis, control, and decision-making**.

Each cost element represents a **specific category of expense** incurred in the production or operation process.

Types of Cost Elements

Cost elements are broadly categorized into **three main types**:

1. Material Cost

- Refers to the cost of raw materials used in the production process.
- It includes both:
 - **Direct Materials:** Can be directly traced to a specific product (e.g., wood for furniture, steel for cars).
 - **Indirect Materials:** Cannot be traced directly to a single product (e.g., lubricants, cleaning supplies).

Example: ₹500 spent on wood used to make a table is a **direct material cost**.

2 Labour Cost

- Refers to the cost of human effort used in production.
- It includes:
 - **Direct Labour:** Workers directly involved in production (e.g., machine operators).
 - **Indirect Labour:** Support staff not directly making the product (e.g., supervisors, cleaners).

Example: Wages paid to welders in an automobile plant is a **direct labour cost**.

3 Expenses (Other Costs)

- These are all **other costs** that are neither material nor labour but are necessary for production.
- It includes:
 - **Direct Expenses:** Costs specifically attributed to a unit or job (e.g., hire of special equipment).
 - **Indirect Expenses:** General overheads (e.g., rent, depreciation, utilities).

Example: Cost of hiring a special machine for a custom job is a **direct expense**.

Summary Table

| Cost Element | Type | Description | Example |
|---------------------|-----------------|-----------------------|----------------------------------|
| Material Cost | Direct/Indirect | Cost of raw materials | Wood, glue, paint |
| Labour Cost | Direct/Indirect | Wages of workers | Operator wage, supervisor salary |
| Other Expenses | Direct/Indirect | Miscellaneous costs | Rent, insurance, power |

Conclusion

The concept of cost elements helps businesses:

- Understand how resources are consumed
- Control unnecessary spending
- Prepare accurate product pricing
- Evaluate performance of different departments

Cost of Material – Meaning, Types, and Control

The **cost of material** refers to the **expenditure incurred on acquiring raw materials** used in the production of goods or services. It is a **major component of total cost**, especially in manufacturing industries.

Types of Material Cost

Material costs are classified into two main categories:

1 Direct Material Cost

- Cost of materials that **can be directly identified and traced** to a specific product or job.
- Forms a part of the **prime cost** (along with direct labour and direct expenses).

Examples:

- Wood in furniture manufacturing
- Steel in car production
- Fabric in garment production

2 Indirect Material Cost

- Materials **not directly traceable** to a specific product or job.
- Treated as part of **factory or production overhead**.

Examples:

- Lubricants for machines
- Cleaning materials
- Nuts and bolts used in multiple products

Components of Material Cost

The total cost of material includes:

| Component | Description |
|---------------------------|---|
| Purchase Price | Base price of the material from supplier |
| Freight/Transport Charges | Cost of bringing materials to factory/warehouse |

| Component | Description |
|------------------------|--|
| Handling Charges | Loading, unloading, and internal transport costs |
| Insurance | Insurance during transit |
| Import Duties/Taxes | Customs and import-related costs |
| Storage Charges | If applicable before issue to production |
| Discounts (Trade/Cash) | Deducted from gross price |

Objectives of Material Cost Control

1. **Minimize cost** without compromising quality
2. **Avoid overstocking or understocking**
3. Ensure **timely availability** of materials
4. Maintain **accurate inventory records**
5. Prevent **losses due to theft, wastage, or damage**

Methods to Control Material Cost

- **Inventory Control Techniques** (e.g., ABC Analysis, EOQ, JIT)
- **Material Budgeting**
- **Standard Costing and Variance Analysis**
- **Perpetual Inventory System**
- **Proper Storage and Handling**

Conclusion

The cost of material is a **crucial and controllable component** of production. Effective management and control of material cost lead to **cost efficiency, profitability, and better financial planning** in an organization.

*INVENTORY CONTROL: Techniques & Methods

Inventory Control refers to the **systematic approach of ordering, storing, managing, and tracking inventory** (raw materials, work-in-progress, and finished goods) to ensure optimal stock levels.

Effective inventory control helps minimize carrying costs, prevent stockouts or overstocking, and ensures smooth production and sales operations.

Techniques of Inventory Control

Here are the most commonly used inventory control techniques:

1 ABC Analysis (Always Better Control)

- **Basis:** Value of consumption.
- **Classification:**
 - **A items:** High-value, low-quantity items (tight control).
 - **B items:** Moderate value and quantity (moderate control).
 - **C items:** Low-value, high-quantity items (simple control).

Purpose: Focuses more control on high-value items.

2 EOQ (Economic Order Quantity)

- **Definition:** The optimal order quantity that minimizes total ordering and holding costs.
- **Formula:**

$$EOQ = \sqrt{\frac{2DS}{H}}$$

Where:

- D = Annual demand
- S = Ordering cost per order
- H = Holding cost per unit per year

Purpose: Balances ordering and carrying costs to reduce total inventory cost.

3 Just-In-Time (JIT)

- **Definition:** Inventory is received **only when needed** in the production process.
- **Objective:** Eliminate waste, reduce storage costs.

Requires: Strong supplier coordination, efficient logistics.

4 FSN Analysis (Fast, Slow, Non-moving)

- Based on **movement of inventory**.
 - **Fast-moving:** Used/sold frequently.
 - **Slow-moving:** Used less often.
 - **Non-moving:** No usage in recent periods.

Purpose: Helps in disposing of obsolete stock and optimizing stock movement.

5 VED Analysis (Vital, Essential, Desirable)

- Used mainly in **maintenance and spare parts**.

- **Vital:** No operation without it.
- **Essential:** Required but operation can continue temporarily without it.
- **Desirable:** Nice to have, but not necessary.

Purpose: Prioritize inventory based on criticality.

6 HML Analysis (High, Medium, Low Price)

- Based on **unit price** of items.
 - **High:** Expensive items.
 - **Medium:** Moderately priced.
 - **Low:** Cheap items.

Purpose: Cost control over high-value items.

7 Minimum, Maximum & Reorder Level

- **Minimum Level:** Stock should not fall below this.
- **Maximum Level:** Stock should not exceed this.
- **Reorder Level:** Point at which a new order must be placed.

Used for: Day-to-day inventory decision-making.

8 Perpetual Inventory System

- Continuous tracking of inventory using records and software.
- Ensures real-time stock updates and regular physical verification.

Advantage: Accurate and up-to-date stock position.

Summary Table

| Technique | Basis | Purpose |
|------------------|------------------------|-------------------------------|
| ABC Analysis | Consumption Value | Control high-value items |
| EOQ | Cost Optimization | Minimize total cost |
| JIT | Time of Receipt | Zero inventory |
| FSN | Usage Frequency | Manage movement and disposal |
| VED | Importance/Criticality | Prioritize essential items |
| HML | Unit Price | Control expensive items |
| Min-Max-Reorder | Stock Level | Maintain availability |
| Perpetual System | Real-Time Records | Prevent stockouts & pilferage |

Conclusion

Applying the right inventory control techniques helps businesses:

- Improve efficiency
- Reduce costs
- Enhance customer satisfaction
- Avoid overstocking and shortages

Pricing of Issue of Inventory – Methods Explained

When materials are issued from inventory (stores) to production or departments, they must be **assigned a cost**. This is done using **inventory pricing methods** that help determine the value of issued materials and closing stock.

Main Methods of Pricing Inventory Issues

1 FIFO (First In, First Out)

- **Assumption:** Oldest stock is issued first.
- **Effect:** Closing stock reflects recent prices.

Used When:

- Prices are rising
- You want higher closing stock value

Example:

If purchases are at ₹10, ₹12, and ₹14, issues will be charged at ₹10 first, then ₹12, etc.

2 LIFO (Last In, First Out)

- **Assumption:** Newest stock is issued first.
- **Effect:** Closing stock reflects older prices.

Used When:

- Prices are falling
- You want lower profits for tax benefit (not allowed in India under accounting standards)

Example:

If purchases are at ₹10, ₹12, and ₹14, issues will be charged at ₹14 first, then ₹12, etc.

3 Weighted Average Price Method

- **Formula:**

$$\text{Average Price} = \frac{\text{Total Cost of Inventory}}{\text{Total Units}}$$

$$\text{Average Price} = \frac{\text{Total Cost of Inventory}}{\text{Total Units}}$$

- Every issue is priced at this **average cost**.

Advantage:

- Smooths out price fluctuations
- Simple to apply

4 Simple Average Price Method

- Average of all purchase prices **without considering quantity**.

Example:

If purchases are ₹10, ₹12, and ₹14,
Simple average = $(10 + 12 + 14) / 3 = ₹12$

5 Standard Price Method

- All issues are charged at a **pre-determined standard price**.

Used For:

- Cost control and variance analysis

Example:

Standard price set as ₹11, even if actual prices vary.

6 Replacement Price Method

- Materials are issued at the price that would be **paid if they were replaced today**.

Reflects current market condition, but does not match purchase cost.

7 Specific Identification Method

- Used when materials are **specifically purchased for a job or order**.
- Actual price of specific lot is assigned to that job.

Used In:

- High-value or customized products (e.g., machines, luxury items)

Comparison Table

| Method | Basis | Closing Stock Reflects | Issue Valuation |
|-------------------------|--------------------------|------------------------|-----------------|
| FIFO | Oldest cost first | Recent prices | Old prices |
| LIFO | Newest cost first | Older prices | Recent prices |
| Weighted Average | Avg. based on quantities | Mixed prices | Smoothed prices |
| Simple Average | Arithmetic mean | Not quantity based | Avg. prices |
| Standard Price | Pre-set price | Not actual cost | Standard rate |
| Replacement Price | Market price | Not historical | Current value |
| Specific Identification | Actual cost of lot | Accurate | Actual rate |

Conclusion

The choice of method depends on:

- Nature of business
- Pricing policy
- Tax and legal considerations
- Inventory movement

UNIT-2

LABOUR COST

Labour Cost refers to the total expenses incurred by an employer to compensate workers for their services. It's a major component of production costs and can significantly impact pricing, budgeting, and profitability.

Types of Labour Costs

- **Direct Labour Cost:**
 - Wages paid to workers directly involved in production (e.g. machine operators, assembly line workers).
 - Easily traceable to specific products or services.
- **Indirect Labour Cost:**
 - Salaries of support staff (e.g. supervisors, maintenance crew).
 - Not directly linked to production but necessary for operations.

Components of Labour Cost

- **Monetary Benefits:**
 - Basic wages
 - Dearness allowance
 - Bonuses (production, profit)
 - Employer contributions to Provident Fund and ESI
- **Fringe Benefits:**
 - Subsidized meals and housing
 - Medical facilities
 - Paid holidays and recreational amenities

Fixed vs Variable Labour Costs

| Type | Description | Example |
|----------|--|----------------------------|
| Fixed | Costs that remain constant over time | Salaried employees |
| Variable | Costs that change with production volume | Hourly wages, overtime pay |

How to Calculate Labour Cost

A basic formula:

Labour Cost = (Total Sales × % of Labour) / Average Hourly Wage

Example: If total sales = ₹1,50,00,000, labour % = 12%, and average hourly wage = ₹1,000:

Labour Cost = (1,50,00,000 × 0.12) / 1,000 = ₹18,000

Why It Matters

- Helps in accurate product pricing
- Affects profit margins
- Essential for budgeting and cost control
- Influences hiring and workforce planning

Idle Time

Idle time refers to periods when employees are paid but not actively working due to delays, breakdowns, or lack of tasks.

- **Types:**
 - *Normal Idle Time:* Scheduled breaks, machine setup, shift changes.
 - *Abnormal Idle Time:* Equipment failure, power outages, material shortages.
- **Formula:**
- Idle Time = Scheduled Production Time - Actual Production Time
- **Impact:**
 - Reduces productivity
 - Increases unit labor cost
- **Control Measures:**
 - Preventive maintenance
 - Streamlined workflows
 - Real-time monitoring tools

Overtime

Overtime is the extra hours worked beyond regular schedules, typically paid at a premium rate.

- **Standard Rules (India):**
 - Beyond 9 hours/day or 48 hours/week
 - Paid at **2x** the regular hourly rate
- **Formula:**
- Overtime Pay = 2 × Hourly Rate × Overtime Hours
- **Pros:**
 - Meets urgent deadlines
 - Boosts employee earnings
- **Cons:**
 - Higher labor cost
 - Risk of burnout

- **Control Tips:**
 - Use scheduling software
 - Monitor workload distribution
 - Offer compensatory time off

Labour Turnover

Labour Turnover refers to the rate at which employees leave and are replaced within an organization over a specific period. It's a key indicator of workforce stability and can impact productivity, morale, and costs.

How to Calculate Labour Turnover

There are several methods, but the most common formula is:

Labour Turnover Rate (%) = (Number of Employees Left / Average Number of Employees) × 100

Example: If 30 employees left during a quarter and the average workforce was 510:

Turnover Rate = (30 / 510) × 100 = 5.88%

Types of Labour Turnover

| Type | Description |
|---------------|--|
| Voluntary | Employee resigns for personal or career reasons |
| Involuntary | Employee is terminated or laid off |
| Functional | Low-performing employees leave, improving team performance |
| Dysfunctional | High-performing employees leave, harming productivity |
| Avoidable | Caused by poor management, low pay, or lack of growth |
| Unavoidable | Due to retirement, relocation, health issues |

Causes of Labour Turnover

- **Avoidable:**
 - Low wages
 - Poor working conditions
 - Lack of recognition or growth
 - Toxic company culture
- **Unavoidable:**
 - Retirement
 - Health issues
 - Family relocation
 - Death

Effects of High Turnover

- Increased hiring and training costs
- Reduced productivity and morale
- Disruption in workflow
- Loss of institutional knowledge

Positive Effects (Sometimes!)

- Opportunity to bring in fresh talent
- Removal of underperformers
- Cultural renewal

Strategies to Reduce Labour Turnover

- Offer competitive compensation and benefits
- Improve onboarding and training
- Foster a positive work culture
- Provide career development opportunities

Labour Cost Control

Labour Cost Control is all about managing and optimizing the expenses associated with employing workers—without compromising productivity or morale. It's a balancing act between efficiency and fairness, and it plays a huge role in keeping operations profitable.

Objectives of Labour Cost Control

- Minimize unnecessary labour expenses
- Maximize employee productivity
- Maintain fair compensation practices
- Ensure compliance with labour laws
- Support strategic workforce planning

Key Mechanisms for Control

| Method | Description |
|-----------------------------------|---|
| Workforce Planning | Forecasting labour needs to avoid overstaffing or understaffing |
| Time Tracking Systems | Monitoring attendance, idle time, and overtime |
| Standard Labour Costing | Setting benchmarks for expected labour cost per unit |
| Job Performance Reports | Evaluating individual and team productivity |
| Incentive Schemes | Motivating employees to exceed performance targets |
| Training & Development | Enhancing skills to improve efficiency and reduce errors |

Departments Involved

- **Personnel Department:** Recruitment, training, placement
- **Engineering Department:** Controls production methods
- **Time-Keeping Department:** Records attendance and job time
- **Payroll Department:** Manages wage payments and deductions
- **Cost Accounting Department:** Tracks and analyzes labour costs

Best Practices

- Set clear performance standards and compare actuals regularly
- Use labour budgets aligned with production forecasts
- Conduct time and motion studies to identify inefficiencies
- Review wage policies to ensure they drive productivity
- Prepare periodic labour performance reports

Benefits of Effective Labour Cost Control

- Lower production costs
- Higher profit margins
- Better resource allocation
- Improved employee satisfaction (when done fairly)

Incentive Wage Plan

Incentive Wage Plan is a compensation strategy designed to reward employees for exceeding performance benchmarks. Unlike fixed salaries, these plans tie earnings directly to productivity, efficiency, or results—making them powerful tools for motivation and cost control.

Objectives of Incentive Wage Plans

- Boost employee productivity and efficiency
- Align individual goals with organizational targets
- Reduce labor cost per unit
- Retain high-performing employees
- Encourage innovation and accountability

Types of Incentive Wage Plans

| Plan Type | Description |
|------------------------------|--|
| Piece Rate | Pay per unit produced; common in manufacturing |
| Halsey Plan | Bonus for time saved; worker gets 50% of time saved value |
| Rowan Plan | Bonus based on proportion of time saved to standard time |
| Taylor's Differential | Higher rate for meeting/exceeding standard; lower rate otherwise |

| Plan Type | Description |
|-------------------------|--|
| Gantt Plan | Guaranteed wage + bonus for completing task within standard time |
| Commission | % of sales earned; popular in retail and sales roles |
| Profit Sharing | Employees receive a share of company profits |
| Group Incentives | Rewards based on team or department performance |

Example: Halsey Plan Calculation

If standard time = 10 hrs, actual time = 8 hrs, hourly rate = ₹100:

$$\begin{aligned}
 \text{Wages} &= (8 \times ₹100) + 50\% \text{ of } (10 - 8) \times ₹100 \\
 &= ₹800 + ₹100 \\
 &= ₹900
 \end{aligned}$$

Benefits

- Encourages higher output and efficiency
- Reduces supervision needs
- Improves employee morale and engagement
- Helps identify and reward top performers

Challenges

- May lead to quality issues if speed is prioritized
- Can cause stress or unhealthy competition
- Requires accurate performance measurement
- Not suitable for all job types (e.g. creative or support roles)

Overheads

Overheads refer to all indirect costs incurred in the day-to-day operations of a business that **cannot be directly traced** to a specific product, service, or activity. These are essential for running the business but don't directly contribute to production.

Meaning of Overheads

- **Indirect Costs:** Expenses not directly linked to production or service delivery.
- **Recurring:** Typically ongoing and necessary regardless of output levels.
- **Examples:** Rent, utilities, administrative salaries, depreciation, insurance.

Classification of Overheads

Overheads can be classified based on different criteria:

1 By Nature (Element-wise)

| Type | Description | Examples |
|--------------------|-------------------------------------|--------------------------------|
| Indirect Materials | Not part of the final product | Lubricants, cleaning supplies |
| Indirect Labour | Not directly involved in production | Supervisors, maintenance staff |
| Indirect Expenses | General operational costs | Rent, insurance, depreciation |

2 By Function

| Type | Description | Examples |
|----------------------------|--|------------------------------------|
| Production Overhead | Costs incurred in manufacturing | Factory rent, machine maintenance |
| Administrative | Costs for general management | Office salaries, legal fees |
| Selling | Costs to promote and sell products | Advertising, sales commissions |
| Distribution | Costs to deliver products to customers | Packing, shipping, warehousing |
| R&D Overhead | Costs for innovation and development | Lab equipment, researcher salaries |

3 By Behavior

| Type | Description | Examples |
|-----------------|--------------------------------------|-----------------------------|
| Fixed | Remain constant regardless of output | Rent, salaries |
| Variable | Change with production volume | Power, raw material wastage |

| Type | Description | Examples |
|----------------------|-------------------------------|----------------------------------|
| Semi-variable | Partly fixed, partly variable | Utility bills, maintenance costs |

4 By Controllability

| Type | Description | Examples |
|-----------------------|---|---------------------------|
| Controllable | Can be influenced by management decisions | Overtime, office supplies |
| Uncontrollable | Outside management control | Taxes, regulatory fees |

5 By Normality

| Type | Description | Examples |
|-----------------|------------------------|---------------------------|
| Normal | Expected and recurring | Regular maintenance |
| Abnormal | Unexpected or unusual | Fire damage, theft losses |

Allocation, Apportionment, and Absorption of Overheads

Allocation, Apportionment, and Absorption of Overheads are key steps in cost accounting used to distribute indirect costs (overheads) across departments, products, or services. Let's break each one down clearly:

1. Allocation of Overheads

Definition: Assigning an entire overhead cost directly to a specific cost center or department.

- **Used when:** The expense is clearly attributable to one department.
- **Examples:**

- Depreciation of a machine used only in Department A.
- Salary of a supervisor dedicated to one section.

2. Apportionment of Overheads

Definition: Distributing a shared overhead cost across multiple departments on an equitable basis.

- **Used when:** The expense benefits more than one department.
- **Examples & Bases:**
- **Types:**
 - **Primary Apportionment:** Initial distribution to all departments.
 - **Secondary Apportionment:** Redistribution of service department costs to production departments.

3. Absorption of Overheads

Definition: Charging overheads from cost centers to individual products or services using a predetermined rate.

- **Formula:**
- $$\text{Overhead Absorption Rate} = \text{Total Overheads} / \text{Total Units of Base}$$

(Base could be machine hours, labor hours, units produced, etc.)

- **Methods:**
- **Example:** If overheads = ₹50,000 and machine hours = 5,000:
- $$\text{Absorption Rate} = ₹50,000 / 5,000 = ₹10 \text{ per machine hour}$$

Why These Steps Matter

- Ensure accurate product costing
- Help in pricing decisions
- Aid in cost control and budgeting
- Support profitability analysis

Unit Costing

Unit Costing—also known as **Single or Output Costing**—is a method used to determine the cost of producing **one unit** of a product. It's especially useful in industries where goods are **homogeneous** and produced in **large quantities**, like bricks, cement, sugar, or bottled water.

Formula for Unit Costing

$$\text{Unit Cost} = \text{Total Cost of Production} / \text{Total Units Produced}$$

Example: If a company spends ₹5,00,000 to produce 10,000 units:

Unit Cost = ₹5,00,000 / 10,000 = ₹50 per unit

Industries Where It's Applied

- Cement and brick manufacturing
- Sugar mills
- Bottled beverages
- Paints and chemicals
- Paper production
- Mining and quarries

Cost Sheet Structure

A **cost sheet** is typically prepared to show:

1. **Direct Materials**
2. **Direct Labour**
3. **Direct Expenses**
4. **Prime Cost** = (1 + 2 + 3)
5. **Factory Overheads**
6. **Works Cost** = Prime Cost + Factory Overheads
7. **Administrative Overheads**
8. **Cost of Production**
9. **Selling & Distribution Overheads**
10. **Total Cost / Cost of Sales**
11. **Profit Margin**
12. **Selling Price**

Advantages

- Simple and easy to apply
- Helps in pricing decisions
- Useful for cost control and comparison
- Ideal for tendering and quotations

Limitations

- Not suitable for customized or varied products
- Doesn't handle complex overhead allocation well
- Less effective in service-based industries

UNIT – 3

Operating Costing—also known as **Service Costing**—is a method used to determine the cost of providing services rather than manufacturing goods. It's ideal for industries like transport, hospitality, healthcare, and utilities where the output is intangible and standardized.

Definition

Operating costing is the process of calculating the cost per unit of service provided. It helps organizations understand how much it costs to deliver a service and set appropriate pricing.

Industries That Use Operating Costing

- Transport (road, rail, air, shipping)
- Hospitals and clinics
- Hotels and restaurants
- Educational institutions
- Utility providers (electricity, water, gas)
- Canteens and cafeterias
- Cinemas and entertainment venues

Cost Units in Operating Costing

| Industry | Cost Unit Example |
|-------------|-------------------------------|
| Transport | Passenger-kilometre, tonne-km |
| Hospital | Per bed-day, per patient |
| Hotel | Per room-night |
| Canteen | Per meal, per plate |
| Electricity | Per kilowatt-hour |

Structure of an Operating Cost Sheet

1. **Standing/Fixed Charges:**
 - Salaries, insurance, rent, depreciation
2. **Running/Variable Charges:**
 - Fuel, maintenance, consumables
3. **Maintenance Charges:**
 - Repairs, servicing, spare parts
4. **Total Operating Cost:**

- Sum of all above
- 5. **Cost per Unit of Service:**
- 6. Cost per Unit = Total Operating Cost / Total Service Units

Features

- Focuses on **service delivery** rather than product manufacturing
- Involves both **fixed and variable costs**
- Uses **composite cost units** (e.g. tonne-km, passenger-km)
- Helps in **pricing, budgeting, and cost control**

Example: Transport Costing

If a bus travels 1,000 passenger-kilometres in a day and incurs ₹10,000 in total operating costs:

$$\text{Cost per Passenger-KM} = ₹10,000 / 1,000 = ₹1$$

Reconciliation of Cost and Financial Accounts

Reconciliation of Cost and Financial Accounts is the process of aligning the profit or loss figures shown by cost accounting with those shown by financial accounting. This is essential when a business maintains **non-integrated accounting systems**, meaning cost and financial records are kept separately.

Why Reconciliation Is Needed

- Cost and financial accounts serve different purposes and use different methods.
- Profit figures often differ due to:
 - Different stock valuation methods
 - Inclusion/exclusion of certain incomes or expenses
 - Over/under absorption of overheads
 - Notional charges in cost accounts (e.g. rent on owned premises)

Common Causes of Discrepancy

| Category | Examples |
|---|---|
| Items in Financial Accounts Only | Interest received, loss on sale of assets, income tax, donations |
| Items in Cost Accounts Only | Notional rent, imputed interest on capital, internal efficiency gains |
| Over/Under Absorption of Overheads | Estimated overheads vs actual expenses |

| Category | Examples |
|--------------------------------|--|
| Different Depreciation Methods | WDV in financial vs machine-hour rate in cost accounts |
| Stock Valuation Differences | FIFO/LIFO in cost vs lower of cost or market in financial accounts |

Reconciliation Statement Format

Start with profit as per cost accounts and adjust for differences:

```

Profit as per Cost Accounts
+ Items credited in financial accounts but not in cost accounts
- Items debited in financial accounts but not in cost accounts
+ Over-absorption of overheads in cost accounts
- Under-absorption of overheads in cost accounts
+ Undervaluation of closing stock in cost accounts
- Overvaluation of opening stock in cost accounts
= Profit as per Financial Accounts

```

Memorandum Reconciliation Account

An alternative format that resembles a ledger account:

- Credit side: Items added to cost profit
- Debit side: Items deducted from cost profit
- Balancing figure: Profit as per financial accounts

Benefits of Reconciliation

- Ensures accuracy and reliability of both accounting systems
- Helps detect errors or omissions
- Aids in internal control and decision-making
- Promotes coordination between cost and financial departments

UNIT-4

Contract Costing is a specialized method of cost accounting used for large-scale, long-duration projects—typically in industries like construction, shipbuilding, and civil engineering. Each contract is treated as a **separate cost unit**, and costs are tracked individually to determine profitability and manage resources efficiently.

Key Features of Contract Costing

- **Specific Order Costing:** Each contract is customized to the client’s requirements.
- **Long Duration:** Projects often span months or years.
- **Site-Based Work:** Most work is performed at the contract site, not in a factory.
- **Direct Costing:** Materials, labor, and equipment are charged directly to the contract.
- **Separate Accounts:** Each contract has its own ledger for tracking costs and revenues.
- **Progress Payments:** Contractors are paid in installments based on work certified by an architect or engineer.
- **Retention Money:** A portion of payment is withheld until final completion to ensure quality.

Types of Contracts

| Type | Description |
|-----------------------------|---|
| Fixed Price Contract | Agreed price paid upon completion; may include penalties or bonuses |
| Escalation Clause | Price adjusts based on changes in material or labor costs |
| Cost Plus Contract | Contractor reimbursed for actual costs plus a fixed profit margin |

Cost Components

- **Direct Costs:** Materials, labor, equipment, subcontractor fees
- **Indirect Costs:** Administrative overhead, insurance, depreciation
- **Work Certified:** Value of work approved by the client’s representative
- **Work Uncertified:** Cost of work completed but not yet certified
- **Retention Money:** Held back by the client to ensure contract fulfillment

Profit Recognition

Since contracts span multiple periods, profits are recognized progressively:

- **Notional Profit:** Estimated profit based on work completed
- **Formula** (when work certified is >50%):
- $\text{Profit to P\&L} = \text{Notional Profit} \times \left(\frac{\text{Cash Received}}{\text{Work Certified}} \right) \times \frac{2}{3}$

Advantages

- Accurate tracking of large project costs
- Helps in budgeting and forecasting
- Enables performance-based billing
- Facilitates better control over resources

Process costing

Process costing involves assigning production costs to each stage (or process) of manufacturing. Costs are averaged over all units produced, making it easier to determine the **cost per unit**.

Key Features

- Continuous production flow
- Standardized and identical products
- Costs accumulated by process or department
- Output of one process becomes input for the next
- Normal and abnormal losses are accounted for
- Uses **equivalent units** to handle work-in-progress

Steps in Process Costing

1. **Record Inventory:** Track units at each process stage.
2. **Convert WIP to Equivalent Units:** Adjust for partially completed units.
3. **Accumulate Costs:** Add direct materials, labor, and overheads.
4. **Calculate Cost per Equivalent Unit:**
5. $\text{Cost per Unit} = \frac{\text{Total Costs}}{\text{Equivalent Units}}$
6. **Allocate Costs:** Split between completed units and WIP.

Methods of Process Costing

| Method | Description |
|----------------------------|--|
| Weighted Average | Combines costs from current and prior periods; simplest to apply |
| FIFO (First-In, First-Out) | Separates costs by period; more accurate but complex |

| Method | Description |
|------------------|---|
| Standard Costing | Uses pre-set cost estimates; variances tracked separately |

Industries That Use It

- Cement and steel
- Paints and chemicals
- Soap and detergents
- Paper and pulp
- Oil refining
- Food and beverage (e.g. canned goods)

Advantages

- Simplifies cost tracking in mass production
- Facilitates pricing and budgeting
- Helps identify inefficiencies in each process
- Supports inventory valuation and financial reporting

Limitations

- Not suitable for customized or job-based production
- Requires accurate tracking of losses and WIP
- May obscure individual unit cost variations

----------*-----*